### **ENVIRONMENTAL CHEMISTS**

Date of Report: July 17, 1996 Date Received: July 11, 1996

Project: Metro Self Monitor, PO #M53869 Date Samples Extracted: July 12, 1996 Date Extracts Analyzed: July 16, 1996

# RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

### Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M53869	0.48	0.35	0.40	<0.05
Method Blank	< 0.05	< 0.05	< 0.05	<0.05

#### **ENVIRONMENTAL CHEMISTS**

Date of Report: July 17, 1996 Date Received: July 11, 1996

Project: Metro Self Monitor, PO #M53869

# QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 70610(Duplicate)

		SALL AND AND		Relative	
Maria Maria	Reporting	Sample	그림 그는 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그		Acceptance
Analyte:	Units	Result	Result	Difference	<u>Criteria</u>
Chromium	n mg/L (ppm)	0.48	0.48	0	0-20
Copper	mg/L (ppm)	0.35	0.40	13	0-20
Nickel	mg/L (ppm)	0.40	0.40	0	0-20
Zinc	mg/L (ppm)	< 0.05	< 0.05	nm	0-20

Laboratory Code: 70610 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	Acceptane Criteria	
Chromium	mg/L (ppm)	5	0.48	90	80-120	
Copper	mg/L (ppm)	5	0.35	91	80-120	Transfer and
Nickel	mg/L (ppm)	10	0.40	89	80-120	
Zinc	mg/L (ppm)	5	< 0.05	88	80-120	

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Red MS	covery MSD	Acceptano Criteria	Relative Percent <u>Difference</u>
O1			05	00	00 100	
Chromium		0	95	96	80-120	1
Copper	mg/L (ppm)	5	97	95	80-120	2
Nickel	mg/L (ppm)	10	95	96	80-120	1
Zinc	mg/L (ppm)	5	97	97	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

22.4

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

SAMPLE CHAIN OF CUSTODY

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06/25/96

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

July 17, 1996

## INVOICE # 96ACU0717-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M53869: Results of testing requested by Gerry Thompson, Project Manager for material submitted on July 11, 1996.

1 process water sample analyzed for		
Chromium, Copper, Nickel, Zinc		
using Method 6010 @ \$65 per sample		\$ 65.00
경험하다는 얼마나 아내는 사람들은 사람들은 것이다.		
Amount Due	e ješ Krista s. ja ejedička	\$ 65.00

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

July 17, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on July 11, 1996 from your Metro Self Monitor, PO #M53869 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

keh

Enclosures ACU0717R.DOC FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

# SAMPLE CHAIN OF CUSTODY

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7238 metro Self monitor m 53948									
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